REMARKS/ARGUMENTS/ELECTION

Claims 1, 3, 5, 6, 9, 10, 12, 14, 17, 18, 22, 35, 42, 61, 62, and 65 are amended, of which claims 9, 17, and 18 are withdrawn. In addition, claims 15, 34, and 52-60 are canceled, and claims 70-84 are newly added. Claims 1-14, 16-33, 35-51, and 61-84 are now pending in this application, and of the pending claims, claims 9, 11, 16-21, 43, 44, 64, and 68 are withdrawn. Applicants respectfully request reexamination and reconsideration of the application as amended.

Initially, Applicants acknowledge with appreciation the Examiner's indication that claim 2 is allowable over the prior art of record. As discussed below, Applicants believe that all pending claims are allowable over the prior art of record.

Applicants note the requirement to update in the specification the status of the parent applications. Applicants did so in the Election And Amendment filed April 26, 2004.

Claim 10 was objected to as containing a spelling error. Applicants have corrected the spelling error in claim 10 and a similar spelling error in withdrawn claim 18.

Applicants note the suggestion to cancel nonelected claims and the objection to claims 11, 17-21, 43, and 44. Applicants have canceled claims 52-60 but have retained withdrawn claims 9, 11, 16-21, 43, 44, 64, and 68 because each of the foregoing claims depends from an elected claim. Applicants request that, upon allowance of a base claim, all withdrawn dependent claims be rejoined and examined. (See MPEP § 806.04(f).)

Claims 1-69 were rejected under 35 USC § 112, second paragraph. Claims 1, 6, 42, and 62 have been amended, and claims 15 and 34 have been canceled. Applicants believe that the claims are now definite and in full compliance with 35 USC § 112, second paragraph.

Claims 1-8, 10-15, 17-51, 61-63, 65-67, and 69 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over copending application serial no. 09/834,074 (hereinafter "the '074 application"). Applicants do not traverse this rejection but will wait until this application and the '074 application are allowed and then file a terminal disclaimer in the later of the two applications to be allowed. (See MPEP § 804, pg. 800-19.)

Claims 1-8, 10-15, 17-51, 61-63, 65-67, and 69 were also rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over US Patent No. 6,520,778. Applicants do not traverse this objection but will wait until this application is

otherwise in condition for allowance to file a terminal disclaimer so that, if necessary, the same terminal disclaimer may be used to disclaim a patent issuing from the '074 application.

Claims 1-8, 10, 11, 13-15, 30-32, 34-40, 61-63, 66, 67, and 69 were rejected under 35 USC § 102(b) as anticipated by, or alternately under 35 USC § 103(a) as obvious in view of, US Patent No. 5,914,614 to Beaman et al. ("Beaman"). Applicants respectfully traverse this rejection.

Independent claim 1 includes "column elements" each of which comprises a "core element" and an "over coat." In addition, the core element comprises a "first material" that is one of "softer," "less rigid," or "has a lower modulus of elasticity" than a "second material" that composes the over coat. Beaman's ball bonds 21 (see Figure 1 of Beaman) are not over coated with any material much less an over coat material that is one of harder, more rigid, or having a higher modulus of elasticity than the material of the ball bond 21. Nor does Beaman suggest over coating the ball bonds 21.

Indeed, this difference between claim 1 and Beaman is not trivial but provides advantages not found in Beaman. Because the column elements are made of at least two materials with different softness, rigidity, or elasticity properties, the column elements can have desirable properties arising from both materials. Beaman provides no such advantage. Therefore, claim 1 is not only novel but also unobvious in view of Beaman.

Independent claims 35 and 61 include similar column elements and are therefore patentable for the same reasons as discussed above with respect to claim 1. Claims 2-8, 10, 11, 13, 14, 30-32, 36-40, 62-63, 66, 67, and 69 depend from one of independent claims 1, 35, or 61 and are therefore also patentable. (Claims 15 and 34 were canceled.)

Claims 1-8, 10, 11, 13-15, 30-32, 34-40, 61-63, 66, 67, and 69 were also rejected under 35 USC § 102(b) as anticipated by US Patent No. 4,615,573 to White et al. ("White"), or alternately under 35 USC § 103(a) as obvious in view of White in combination with US Patent No. 5,632,631 to Fjelstad et al. ("Fjelstad") and/or Beaman. In addition, claims 1, 3-8, 10-15, 30-40, 68, and 69 were rejected under 35 USC § 103(a) as obvious in view of US Patent No. 6,441,315 to Eldridge et al. ("Eldridge") and Beaman. Applicants respectfully traverse these rejections.

Consistent with the discussion above regarding Beaman's failure to teach or suggest column elements comprising the core element and over coat described in claims 1, 35, and 61,

claims 1-8, 10, 11, 13, 14, 30-32, 35-40, 62-63, 66, 67, and 69 also patentably distinguish over White, Fjelstad, Beaman, and Eldridge whether taken singly or in combination. Therefore, claims 1-8, 10, 11, 13, 14, 30-32, 35-40, 62-63, 66, 67, and 69 also patentably distinguish over White, Fjelstad, and Eldridge.

Applicants note that claims 22-29 were not rejected in view of prior art. Applicants have rewritten claim 22 in independent form and assume that it is allowable over the prior art of record. Claims 23-29 depend from claim 22 and therefore should also be allowable over the prior art of record.

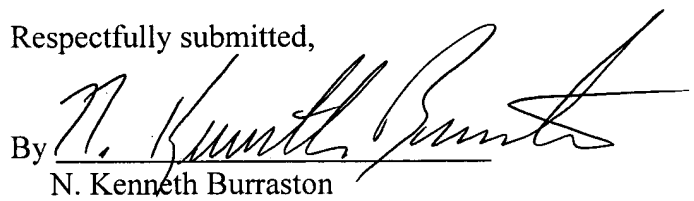
Applicants also note that neither independent claim 41 nor dependent claims 42-51 were rejected in view of prior art. Applicants therefore assume that these claims are allowable over the prior art of record.

New claims 70-84 depend from one of independent claims 1, 22, 35, or 61 and are therefore patentable for the reasons discussed above with respect to independent claims 1, 22, 35, and 61.

In light of the foregoing, Applicants assert that—other than the need for a terminal disclaimer to overcome the double patenting rejection—all claims are allowable and the application is in condition for allowance. If at any time the Examiner believes that a discussion with Applicants' attorney would be helpful, the Examiner is invited to contact the undersigned at (801) 323-5934.

Respectfully submitted,

Date: September 22, 2004

By 
N. Kenneth Burraston
Reg. No. 39,923

Kirton & McConkie
1800 Eagle Gate Tower
60 East South Temple
P.O. Box 45120
Salt Lake City, Utah 84111-1004
Telephone: (801) 323-5934
Fax: (801) 321-4893